

# THE FARMER & GARDENER; AND LIVE-STOCK BREEDER & MANAGER.

CONDUCTED BY I. IRVINE HITCHCOCK, AND ISSUED EVERY TUESDAY FROM THE AMERICAN FARMER ESTABLISHMENT, AT \$5 PER ANNUM, IN ADVANCE

No. 21.

BALTIMORE, SEPTEMBER 23, 1834.

Vol. I.

THIS publication is the successor of the late  
**AMERICAN FARMER.**

(which is discontinued,) and is published at the same office, at five dollars per year, payable in advance. When this is done, 50 cents worth of any kind of seeds on hand will be delivered or sent to the order of the subscriber with his receipt.

**American Farmer Establishment.**

BALTIMORE: TUESDAY, SEPTEMBER 23, 1834.

"STRAYED OR STOLEN," several of our paragraphs, and even some "pretty considerable" articles. They have frequently been seen in the premises of some of our editorial brethren, but without our mark. Whether they break into those premises, or are inveigled or filched, we know not—but one thing we have observed with some emotion, that some of them are travelling about with sundry false marks attached to them. We respectfully request that they may be branded with the words "Farmer and Gardener," and then we care not whither they travel. The last one we noticed thus disguised, was one headed "GEOLOGY." It was last seen in the New-England Farmer, branded, "*New-York Courier and Enquirer.*"

**GAMA GRASS.**—We take pleasure in laying before our readers the following letter from our subscriber, on the interesting subject of the Gama Grass. He is a close observer, and his opinions are entitled to high consideration; but he does not speak *decisively* in regard to the value of this grass, further than he has tried it—we hope to hear from him again on the same subject, next season. Our own opinion, derived more from information than from experience is that its greatest value will be found to consist in its capacity to grow *where* and *when* other grasses will not—on sandy soils, such as the pine barrens of Carolina, and in seasons of drought, when other grasses would be destroyed. We believe that for these purposes and under these circumstances it will be found invaluable—provided it be cut often, while the leaves are succulent and tender. We have a bed of the young plants of last spring's sowing, and can say they have withstood the late drought astonishingly. By the way, the first paragraph of this letter is not the least interesting part of it.—It is indeed *monster-ous* gratifying—wonder if *some* who read it will take a hint.

HENRY COUNTY, GEORGIA, }  
McDonough, Sept. 4th 1834. }

Mr. I. I. HITCHCOCK:—

Sir,—I enclose you a five dollar United States bill, the subscription for the *Farmer and Gardener*, the present year.

I have observed your frequent notices of the gama grass, and much fear that many will be disappointed on a *fair* trial.

Last November I transplanted a fourth of an acre of the roots, and in March the same quantity. Those I put out in March are far more thrifty than the plants set out in the fall—but all will nearly cover the ground the ensuing year. The roots are planted in rows 2 ft. apart, and the distance between the plants 18 inches. Two feet each way would do better. But I fear we shall be disappointed in the *quality* and *quantity* of the hay, although I have never anticipated so great a yield as many have. But the appearance of the young grass indicated a coarseness, not indicative of a superior food for cattle or horses. How this may be altered for the better, when the roots the ensuing year shall be sufficiently set to enable me to cut the grass once a month, I shall not until then attempt to determine—as my present opinion is not founded on proof positive, but rather on appearances—and as I fear the worst—so I shall be the more gratified if the grass succeeds well—at all events you shall hear from me, when I have confirmation by experience on the subject.

Our corn crops have come in finely, and we have abundance.—Of cotton I cannot speak so favorably. The drowth that has set in since our corn has been made, has proved very injurious, and our most intelligent planters fear we shall not obtain a half crop.

In haste, respectfully yours,

AMASA SPENCER.

Mr. HITCHCOCK.—In the American Farmer for March 15, 1833, I see an account of a Knitting Machine, from Huntingdon County, Pennsylvania. I will be glad to be informed if the machine has succeeded, and how it can be procured.—Perhaps some of your readers may be able to give me this information, and soon as convenient, for in a cold day, I find the possession of a pair of good socks, of more consequence to me, than the settlement of the "deposit question," or even "nullification." The crops of corn and cotton in South Alabama, have not been equalled perhaps in the memory of the oldest inhabitants.—The country is very healthy—so far. A READER.

Alabama, 18 August, 1834.

[We well remember the ingeniously contrived machine above mentioned, but know not where it can be procured.—Can any of our readers give the information?—EDITOR.]

EAGLE BALANCE.

Mr. T. M. MOORE, publisher of the Philadelphia Price Current, has invented a very neat little balance, by which counterfeit half and quarter eagles may at once be detected, whether their variation from the genuine be in size or weight, or both. It is infallible, and deserves attention. The balance is strong, not liable to get out of repair, and is as portable as a piece of tobacco.

In North Carolina, the late drought has been succeeded by heavy falls of rain. The Raleigh Register of the 3d instant states that that section has been visited by the most destructive fresh ever known there.—Scarcely a mill or bridge was left standing, as far as accounts from the surrounding country had then been received, and the injury done to crops and stock was immense.

MARYLAND HORTICULTURAL SOCIETY,  
September 20, 1834.

Mr. Edward Keen exhibited one hundred pickling cucumbers of the genuine long green variety—they were very superior.

We omitted last week, accidentally, to notice two varieties of corn presented by Henry Schroeder, Esq.; one was the kind sometimes called popcorn, large, and of luxuriant foliage; the other bears from six to eight ears on each stalk, in clusters, 2 or 3 in each; they are both considered valuable varieties.

Joseph King, Jr. presented a boquette of China asters, verbenas melindres, phlox acuminata, plumbago capensis, cobeas scandens, double white althea, double flowering myrtle, &c.

CHEMISTRY.

Mr. Editor:—A gentleman came to my house to spend a night with me. I put a spoonful of wheat flour and a spoonful of inferior brown sugar in my marble mortar and stirred them well together, and next morning desired his opinion what it was, he examined and pronounced it sugar of a superior quality. When informed that it was half flour he could scarcely believe it, but wanted to know if a better judge would be deceived in the same way; another spoonful of each was prepared in the same way, and carried twenty odd miles to a man whom he knew to be a very good judge; he also pronounced it very superior sugar. Such is the fact, that one spoonful of flour and one of sugar, thus prepared will taste and look exactly like sugar; and that if the sugar was rather dark colored, it will improve the looks; not only so, it will sweeten as much coffee as two spoonfuls of sugar; in fact it will be two spoonfuls of sugar.—*Southern Planter.*

## THE FARMER.

**IMPROVING LAND BY PLOUGHING IN OLD SEDGE.**—We have had two letters on file for some time, from a much valued correspondent in Montgomery county, Dr. Thos. Patterson. We have been obliged to postpone attention to them because, from the importance of their contents they required more time than we could before allot to their due preparation. We should give these letters entire but for their being partly on business. We therefore make a summary of their valuable contents, exhibiting an outline of the writer's practice, which we deem worthy of imitation.

Dr. Patterson says (in July) he has the promise of 40 bushels of corn to the acre on about 12 acres, improved by ploughing-in old sedge alone, and this is the mode of his culture. He turns under the broom sedge, &c. in the fall and winter, and plants his corn in the spring without disturbing the undecomposed vegetable matter under the furrow. He tills his corn lightly, being careful through the process not to disturb the bed of vegetable matter beneath. This is wise; the vegetable matter turned under in the fall is undergoing the process of decomposition through the time that the roots of corn are expanding in search of food.

This gentleman has embraced the very essence of scientific agriculture. The season of the year in which the ploughing under of the sedge was performed, was after the plants had come to perfection; and consequently, the sap of the plant had become a concrete, woody fibre. We have heretofore shown, that woody fibre is nothing more than a concretion of oxygen, hydrogen, and carbon, changed from a gaseous to a solid form; the desideratum now is to disengage these primitive agents from their close adhesion in the stems of the old sedge, and to dissolve them in caloric, that they may, in their original gaseous form, renew their perpetual round in another form. This purpose can be effected but in two ways, either rapidly by ignition, or more slowly by fermentation. If the former method be adopted, and the sage be burned off the ground, as the shortest way, which is the usual practice of farmers, then the gases generated in the process are dispelled through the general mass of the atmosphere. On the contrary, when the sedge is carefully turned under the soil, as is judiciously done by our correspondent, and permitted there to undergo the slow process of fermentation in nature's laboratory, in immediate contact with the roots of the plants cultivated;—these gases are then converted to our own use. The consequence of this

piece of saving economy may be seen by comparing Dr. Patterson's crop of corn with those of his neighbors, who follow the shortest way with their sedge.

We have shown that carbon forms more than one half of the vegetable substance; and, that oxygen and hydrogen form most of the remaining parts. We have likewise shown that charcoal, or in other words, carbon, when decomposed, with an elevated temperature in contact with oxygen gas, enters into union with the oxygen forming carbonic acid gas. We have also shown that oxygen and hydrogen by entering into union—two parts oxygen and one part hydrogen, form water.

We will now repeat in proper order, the operation which is going on under the sod when vegetable matter is turned under, and secured by the covering of the sod. The carbon is let loose from its concrete state in the sedge by fermentation—a part of the oxygen unites with the carbon, forming carbonic acid gas—the remainder of the oxygen unites with the hydrogen, which formed the substance of the old sedge, and forms water. Water has an affinity for carbonic acid gas, and will absorb its own bulk of that gas—these gases all being present, and confined by the incumbent earth, they enter into this union, in immediate contact with the roots of the plants of corn, are absorbed by the roots, and by the proper sap vessels are carried to the leaves, as we have formerly shown, the sap is there exposed on an enlarged surface to the action of light, heat, and electricity, and so modified by the peculiar organization of the plant as to render it the proper sap of that plant. It is owing to the peculiar organization of each plant that these gases elect that peculiar form which constitutes their species; but here our investigation ends, science cannot penetrate this secret farther. The sap is carried, as we have heretofore shown, from the leaf in its appropriate vessels, to increase and perfect the plant.—This unceasing round of matter constitutes vegetation.

In Dr. Patterson's practice there are two points worthy of particular notice—1st. After turning the old sedge carefully under, he does not disturb it in tilling the corn. By this means there is a bed formed for the roots of the plants to expand—The earth is rendered permeable, that these roots may easily extend in the direction in which they are invited by the presence of food; and likewise, that the oxygen and hydrogen being confined from escape, are compelled to enter into union and form water. In a dry season, when moisture cannot be obtained from the atmos-

phere, the supply thus formed will be of the greatest benefit to the plant, and prevent the effect of drought.

By ploughing the ground so deep in tilling the corn as to have turned up the half decomposed old sedge, these gases would have escaped in the atmosphere, and been lost to the cultivator.

In thus commenting upon the very judicious practice of Dr. Patterson, we are not vain enough to think we are advancing any thing new, but we treat the subject thus for the purpose of making old truths familiar, and to induce in the young farmer a scientific view of common operations.

### AGRICULTURAL CHEMISTRY—No. 6.

To the Editor of the Farmer & Gardener:—

SIR—I have before given a short sketch of the offices which the three principal gases perform in vegetation, and have shown that these gases enter into the composition of all vegetable substances, and constitute their essence, however they are varied in tissue, color or qualities.—We have seen in this review of the works of God, an instructive lesson on the wonderful power, wisdom and economy of the Divine Architect; who has combined these three primitive substances, Oxygen, Hydrogen and Carbon, into all the myriads of form, tint, tissue and quality, which are beheld in the vegetable kingdom; and has endowed them with the wonderful power, from age to age, without the least variation, each one to "Yield fruit, whose seed was in itself, after his kind."

We will now turn our attention to the matrix in which all these wonders are performed; and if we can there discover a corresponding simplicity of means, and display of power, it will be presumptive evidence of the truth of our theory; for wherever infinite wisdom and power operate, economy of means will always prevail.

In your last number, a correspondent, 'Agricola,' has shown, that in the rocks and stones which form a great part of the globe we inhabit, the same economy of materials prevails in their composition as we have noticed in the vegetable kingdom. In prosecuting the interesting study of Geology, we find that Quartz, Feldspar, and Mica, compose the greater part of all the rocks and mountains in the world; and if to them we add hornblend and lime, we have the elements of most of the component parts of our globe. These rocks are composed of mixed substances, formed of a few primitive materials, an understanding of which ought to enter into the course of study of every well educated gentleman, and more especially into the education of every one who is intended for the occupation of a cultivator of the earth.

Soils are formed by the disintegration of the rocks that have been mentioned. Pulverized quartz forms the sand of soils—clay is derived from the decomposition of feldspar; and lime from the disintegration of calcareous rock; these, in the course of time, have been washed down from mountain heights, and have formed the alluvial strata in our soil. These three earths form the principal mass of our soils, and are the



objects which demand the farmers' attention; for on the proper understanding and management of these depend all his future interest and living.

I now propose to take up these several earths, to analyse them, and to endeavor to arrive at an understanding of the offices they perform in vegetation.

**Quartz.**—This interesting species embraces numerous varieties differing much in their forms, texture, and external characters. It is sufficiently hard to scratch glass, and it always gives sparks with steel, more or less plentifully, unless the mass be too brittle to sustain the blow; and in this latter case its powder will be found rough to the touch, and sufficiently hard to scratch glass or steel. Cleaveland divides it into two divisions; the first of which embraces those varieties which are susceptible of chrysalization and have a fracture more or less vitreous. The second division contains those minerals which appear to be composed essentially of siliceous only; often equally as pure as those of the first division, but which have never been chrysalized, nor perfectly transparent. Most of the varieties of this division have been classed with the species of siliceous. Quartz is sometimes stalactical or uniform, and sometimes cavernous, corroded or in plates. It is often in pebbles or rolled fragments, and sometimes composed of distinct concretions, which may be granular, prismatic or lamellar. Its specific gravity is from 2.53 to 2.68. It is often perfectly limpid, and forms many of the sparkling gems of great value to the jeweller.

**Second Division.**—The minerals under this division have never been chrysalized, nor are they perfectly transparent. When mixed with a small portion of alumine, lime, and iron, they form the most costly and brilliant gems of lapidaries. They appear to be essentially formed of siliceous. The great value of this species of mineral in agriculture, consists in obviating the too great tendency to adhesion in the other earths composing the soil. A sandy soil attracts caloric or heat, rapidly, and parts with it freely. It does not retain moisture, and renders the earth porous. By a due proportion of this mineral in the soil, it is rendered permeable to light, heat and moisture, and fitted for the extension of the roots of plants. By its great attraction of heat, it maintains a sufficient degree of temperature in the cold clay, to promote fermentation in the manure deposited in the earth; and for converting it into gas, to be imbibed by the roots of the plant. The proper study of the farmer is to have his soil supplied with this mineral, in such a quantity that a sufficient degree of heat and moisture may be present to promote fermentation. The farmer should always know the capacity of his land, to maintain that degree of heat which suits the plants he cultivates. Siliceous was considered as a simple, uncompounded body, until Sir H. Davy ascertained that it, like clay, lime, and other earth, was compounded of a metallic base united to oxygen, to which the name of silica was given by the discoverer, in the proportion of 60 of oxygen and 40 silicium out of 100 parts.

It is probable that siliceous is in a very slight degree soluble in water.

[From the Maine Farmer.]

#### A POPULAR OPINION EXAMINED.

**Mr. Holmes.**—It was formerly my opinion, and I find it is still the opinion of many, perhaps a majority of farmers, that the wheat plant has a more tender constitution than other kinds of grain—that wheat is more liable to disease, generally speaking, I admit—but why is this a decisive proof of its having a more tender constitution than it is that an ox or a cow has a more tender constitution than a Turkey Buzzard, because if offered no other food than carrion they would languish and die? Wheat is a more rich or nutritive grain than others, of course its food must correspond in quality. Hence if we cultivate in a haphazard manner, and either from ignorance, laziness or carelessness adopt a mode of management not in accordance with the habits of plants, we ought not to ascribe its failure to the weakness of its constitution.

I first began to think seriously upon this subject some six or seven years ago. I was conversing with one of the best farmers in town on the subject of raising wheat and rye, and he observed that he did not often sow rye, for said he I am confident I can raise as many bushels of wheat with the same labor and on the same land as I can of rye. I have since paid considerable attention to the subject, and the result is satisfactory to my mind and proves to me that the failures in wheat are not owing to any inherent weakness in the constitution of the plant. In point of fact, I think I may safely say that I have generally lost in point of quantity, saying nothing of the superior value of wheat, by sowing rye instead of it. Rye in some soils will undoubtedly do well where wheat would not—this is not generally the case in this section of the country.

I have frequently, when enquiring of my neighbors in the spring what they intended to sow in some certain piece of land, received this answer, (if it happens to be somewhat late in the season), "It is of no use to sow rye now, I am going to sow wheat or oats, for rye does not do any thing sowed late." This in plain English is as much as to say that they consider even wheat in certain circumstances harder than rye.

It is my firm conviction that the wheat plant has as hardy a constitution as the rye plant, or Indian corn, or even potatoes, and I don't care if you add *Canada Thistles* to the catalogue.—I have mentioned potatoes, and I will relate a fact upon this subject. I once had a field of potatoes, when I lived in Massachusetts, struck with a withering blast or rust when the potatoes were about as large as bullets, and in a few days the vines were all "as dead as a hammer." I have said *Canada thistles* too—now we know that thistles have apparently as many lives as a cat, but still by mowing them frequently, at proper times, they are easily killed—but let any farmer closely examine the wheat and rye plants, especially if they have had such difficulties to encounter as mine has had this season, I think that instead of saying any thing about weak constitution he would say that they were tougher than thistles. In the field of rye, the examination of which I have partly published in the Farmer, I have lately pulled up some of the plants, the first roots of which I am confident from close observation from

time to time are entirely rotten and gone, and with them the mould, occasioned by the fermentation of the manure also, and they are now "going ahead" on juices supplied by a second or third stock of roots, the bottom leaves indicating the ripening of the stalk at the lower joint and the ear blossoming and filling above. Some of the wheat plants that labored under the same or similar difficulties, now bid fair to achieve a most splendid victory, not only over natural obstacles, but also putting to flight a host of theories and idle speculations on the diseases and habits of this plant. I ask, will not these prove themselves to be hardy plants?

I think, Mr. Editor, it is high time for farmers to look into these things themselves. Our farmers generally, however industriously they may labor with their hands, don't like intellectual labor. No, sir, they had rather take Dr. Dwight's theory, or some other Doctor's, and patch it up a little, and then make a paraphrase about it to suit their ideas, and let it go. The more I look into these things the more I realize the necessity of long continued and close attention to this, as well as almost every thing else relating to the pursuits of agriculture. I should as soon expect to hatch hen's eggs in a furnace glowing with the intense heat of Nebuchadnezzar's, as to think of reaching the lofty summit of perfection in agricultural science by any other means.

J. H. J.

Peru, July 18, 1834.

**Covering for Houses.**—First give the rafters a close sheathing of one inch thick seasoned boards and then make a cement of boiled plaster of Paris and tar, rub in a quantity of sharp sand, (or what is better still, the borings of cannon,) and let it be trowelled smooth; when perfectly dry give a coat of paint. My opinion is, this mode of covering houses is preferable to all others, for cheapness, durability, and perfectly secure from fire. Try the experiment.—Q IN THE CORNER.

**Molasses from Potatoes.**—The Cleveland (Ohio) Advertiser of Aug. 22d, says that a small quantity of molasses was brought to that village last week, from Medina county, manufactured from potatoes. Eleven quarts of thick molasses was procured from a bushel and three pecks of potatoes. The flavor is pleasant, and the article equal in every respect to West India Molasses. The process of manufacturing is said to be simple, and not expensive.

[From the New Orleans Bulletin.]

**LOUISIANA SUGAR CROP.**—The following calculation of the amount of the last crop made by one of our most intelligent merchants, will be found accurate.

Export to this day	: : 27,000
From Attapapas	: : 4,500—91500
Now in town	: : 1500
Do. on plantation, about	: : 6000
Consumption of Louisiana	: : 5000
Export via the Lakes for Alabama,	} 1000
Florida and Georgia,	
Sugar shipped up the River	: : 22000
	76,000

## THE BREEDER & MANAGER.

[From the Library of Useful Knowledge.]

### THE SHORT-HORNS.

**Yorkshire—North Riding.**—There are few parts of the kingdom in which so perfect a change has taken place in the breed of cattle as in this extensive division of Yorkshire. Mr. Marshall, who is undoubted authority here, says, in his 'Rural Economy of Yorkshire,' that, at the commencement of the eighteenth century, the ancient black cattle were the only breed in this district.—They resembled the present breed of the lowlands of Scotland, mostly horned, but some of them *humbled*. To these succeeded the long-horned, or Craven breed, and which, by degrees, spread over the whole of the northern and midland counties. At that time the chief work of the farm was done by cattle; the horse had not yet quite superseded the slower, but perhaps more profitable, ox; and many of the long-horns, until they began to be improved by the breeders in the midland counties, were deficient in several valuable points, while the use of them was exceedingly inconvenient, and sometimes dangerous, in the yoke.

On these accounts, the long-horns in their turn gave way to the Holderness, or short-horn breed, and that, for a century past, has maintained its ground, and will continue to do so.

Mr. Marshall gives a singular account of these cattle, when first introduced. He says, that 'the Holderness breed were thin quartered, too light behind, and too coarse before; large shoulders, coarse necks, and deep dewlaps. This form being found disadvantageous to the butcher, increasing the quantity of the coarser parts, and reducing the weight of the prime pieces, the breeder endeavored to enlarge the hind-quarters; and had he stopped when he had got to the happy medium, he would have wrought a good work; but the fashion was set—cloudy bullocks were in estimation. The first variety of this species of cattle, which I can recollect, was a thick, large-boned, coarse, clumsy animal; remarkably large behind, with thick gummy thighs; always fleshy, but never fat, and the flesh being of a bad quality. This, however, was not the worst: the monstrous size of the buttocks of the calf was frequently fatal to the cow, and numbers of cows were annually lost in calving. These monsters were stigmatized by the epithet "Dutch-buttocked," and they were probably the worst breed the Vale ever knew.'

This evil, however, soon cured itself; and, by judicious crossings from their own stock, and, soon afterwards, from the stock of the enterprising and skilful breeders on the banks of the Tees, the Yorkshire cow was brought to her present state of perfection, retaining, with little diminution, the milking properties of the Holderness, and the grazing ones of the improved short-horn, and being, in point of fact, what we have described her to be in p. 156. The old and comparatively unimproved breed is still indeed found in the possession of most of the dairy farmers of this part of the country, for the prejudice—and, as we have confessed, not an unfounded one—against the improved short-horns, that their milking properties have been sacrificed to the accumulation of

fat, still widely prevails. Experience, however, gradually established the fact, that it is prudent to sacrifice a *small* portion of the milk to assist in feeding, when too old to continue in the dairy; or when, as in the neighborhood of large towns, her services as a dairy-cow are dispensed with at an early age. This cross being judiciously managed, the diminution of milk is so small, and the tendency to fatten so great, that the opinion of Mr. Sale (as quoted by Mr. Sheldon Cradock, of Hartforth, and to whom we return our thanks for some valuable information) is perfectly correct—'I have always found, in my stock, that the best milkers, when dried for feeding, make the most fat in the least time.' This is a doctrine which will be better understood and universally acknowledged by and by. Too many of the improvers of the short-horns have done but half justice to their excellent stock. He would deserve well of his country who, with skill and means sufficient, would devote himself to the illustration of this point.

It has been observed, that the cattle of this district have not improved of late so rapidly as in former times. There may be two reasons for this, viz., that the system of breeding *in and in* has been pursued somewhat too far, and that the depreciation of the times has withdrawn many landed proprietors from agricultural pursuits, and thus lessened that competition which was the most powerful stimulus to exertion.

The average weight of cattle in this riding of Yorkshire varies with the food and age of the animal. A steer, from 2½ to 3 years old, when fit for the market, will usually weigh from 65 to 75 stones, imperial weight, and a heifer from 55 to 65 stones. The usual method of preparing them for the market is simple enough. The calf gets milk for the first two or three weeks, and after that, scalded skimmed milk, mixed with oil-cake boiled in water, with hay and turnips, until the spring pastures have sufficient produce to support him; he remains in them until the following winter, when he is either tied up or turned loose into folds, and fed with straw and turnips until the ensuing May: he is then turned once more into the pasture until winter, when he is brought into the fold-yard as before, until nearly May-day, and now, approaching to a state nearly fat enough for the butcher, three or four months' grass feeding generally completes him. Both the improved and the unimproved cattle are treated in the same way. Now, however, appears the essential difference between the breeds—the most forward of the unimproved are scarcely ready when the improved cattle are gone, and they are never so fat and pointy as the others.

Upon the clay-soil of Cleveland, and other parts of this district, the grass-land is principally appropriated to the purposes of the dairy. There the unimproved breed mostly prevails; but even there, the most intelligent of the farmers begin to see the propriety of a cross or two from the Tees-water blood. The young cattle are principally sold in the neighboring markets, and are forwarded to the possessors of extensive turnip-farms in Leicestershire and Northamptonshire.

A great proportion of the cows for the supply of the metropolitan dairies come from the North Riding of Yorkshire. They are sent away with-

in a month or six weeks after calving, and either journey directly to London, or halt for a year or two in Bedfordshire, or some of the midland counties, in order that they may not reach their ultimate destination until they are five or six years old.

Among the breeders of the pure short-horns in this Riding, Major Bower, of Welham, deserves honorable mention. His name appears among the purchasers at Mr. Charles Colling's sale. His cow Daisy, bought there, produced some excellent stock. A heifer of his breed, slaughtered at the age of 18 months, weighed 64 stones, imperial weight, and 10 stones of tallow.

The Earl of Carlisle formerly endeavored to improve the breed of this district by crossing with the Devonshire, and Mr. Cleaver with the Sussex cattle, and it was said that more kindly feeders were obtained, the size was reduced a little, the leg shortened, the bone rendered finer, the form improved, and the strength of the short-horn remained for draught with the activity of the Devon. Whatever might have been the case with the first cross, this supposed improved race has passed quite away.

A cross between the short-horn bull and the Argyllshire heifer was attempted, with greater prospect of success. Mr. Bates had obtained some excellent cattle from a similar attempt, but they could not be fed to an equal weight in the same time, and they were deficient in early maturity.

**West Riding.**—This is principally a manufacturing district, and there are comparatively few agriculturists who pay much attention to the improvement of the breed of cattle. The short-horns, either the Holderness or with some crosses of the Durham, are chiefly found in the neighborhood of the large towns. More in the country, and where the farms are small, (as they are through a great part of this riding,) there are a variety of crosses with the long horns, and with nondescripts of former days. They go under the characteristic name of *half-horns*; the country people are fond of them, they are hardy, yield plenty of milk, and fatten with tolerable quickness. One would wonder how they retain one good quality, for Mr. Sorby, of Holyland-hall, very characteristically describes them, and the little farmers of almost every district—'Those who have a cow or two, of some favorite kind, send them to the nearest bull, which does well enough, provided he gets them a calf.' We must confess, that we nowhere saw so great a collection of mongrels as in the manufacturing portion of the West Riding.

Mr. Newman, the agent of lord Fitzwilliam, satisfactorily accounts for this. He thus writes to us—'The breed of cattle in the greatest esteem in the vicinity of Wentworth, and in fact throughout all the southern part of the West Riding of Yorkshire, is the pure short-horn. A traveller, however, passing through this district, will observe many deviations from that breed, and will meet with crosses that he will have much difficulty to identify. The farms are small, and the farmer has a kind of mixed employment, partly agricultural and partly mercantile: hence his attention is not so much directed to his farm as it should be, and hence arises a certain degree of



carelessness to the selection of his cattle; added to this, there is an idea, although an erroneous one, that the pure short-horns are not good milkers, and which tends materially to check the breed.

In the districts near Doncaster, where the population is more strictly agricultural, the short-horns prevail, and those of a breed and quality highly creditable both to the mere tenant-farmer and to the gentleman who farms his own estate.

It is due to the memory of the late Mr. Mitton, of Badsworth, to place him at the very head of the improvers of short-horn cattle in this district. His 'Old Bull,' known in the Herd Book by the name of 'Badsworth,' is still in the recollection of the farmers of that neighborhood, and no animal contributed more to the improvement of the cattle for many miles round.

About the year 1805, the Wortley Farmers' Club was established, chiefly by lord Wharncliffe (then Mr. Stuart Wortley); and by the operations of that society very considerable improvement was effected in the breed of cattle, sheep and pigs, round Wortley. In 1818 this society ceased to exist, for one more effective had been formed at Doncaster, under the patronage of Earl Fitzwilliam, lord Althorp, Sir A. Cooke, and Mr. Fullerton of Thrybergh Park, and other neighboring gentlemen. This society still flourishes, and a very fair number of excellent cattle are annually exhibited, the males of which become dispersed through a wide district of country. The short-horn cattle have borne away all the prizes.

In almost every part of the West Riding, many Scotch are fed for one year or two, and then sold to the butcher to be slaughtered for home consumption.

As we advance towards the moorlands of the west and north-west of the district, the half-horns prevail more; and in Craven, the native county of the long-horns, we find both the large and the small variety of this breed in tolerable perfection, but perhaps not so much so as in the north of Lancashire. Even here, the short-horns have penetrated and are increasing.

**East Riding.**—The short-horns prevail universally through this riding, except among the cottagers and little farmers, who still obstinately cling to some of the different varieties of half-horns. It is decidedly a breeding country, and a great number of cows are yearly sent from it to Lincolnshire, to be prepared for the London dairies; yet many oxen and cows are brought from the Wolds to the fortnightly and weekly markets so frequent in Yorkshire, and pastured on the rich ground with which the riding abounds.\*

\* In some part of this riding, as well as in the north of Lincolnshire, a very useful society or club used to exist, and is still to be occasionally met with, called 'The Cow Club,' the principal rules of which we abridge from 'Strickland's Survey.'

'Each member shall, on the 12th of May and the 12th of November, pay three-pence in the pound, on her value, for every cow that he insures, which sum, when it amounts to £20, shall be placed at interest, in order to accumulate for the benefit of the club. No cow shall be admit-

[From the London Lancet.]

LECTURES ON VETERINARY MEDICINE,  
Delivered in the University of London, by Mr.  
Youatt.—LECTURE V.

*The veins of the Nasal Cavity—Hæmorrhage from the Nose—The nerves of the Nose—The sense of smelling.*

**The Veins of the Nose.**—The Schneiderian membrane being so plentifully supplied with arterial vessels, the veins are proportionally numerous and large. They do not, however, pursue their course in the usual manner, but are continually running into sinuses, and particularly on the lower part of the nasal cavity, and on the inferior turbinated bone. This accounts for occasional hæmorrhage from the nostril of the horse from very slight causes, and for the difficulty of arresting it. A sinus, or reservoir of blood, so superficial and ill defended, is easily ruptured, and, there being little contractile power in such a vessel, the orifice is with difficulty closed.

**Spontaneous Hæmorrhage from the Nose in the Horse.**—The horse is more subject than any other domesticated animal to *epistaxis*, or spontaneous hæmorrhage from the nostril, and the discharge of blood is sometimes very great. The bleeding is with great difficulty arrested, and the habit of recurrence is too easily formed. The application of cold is usually employed to stay the bleeding, but generally without success. The nasal cavity is large, and it is difficult or impossible to discover the precise spot from which the hæmorrhage proceeds. I have employed water artificially cooled to some degrees below the freezing point, over the whole surface of the nasal and superior maxillary bones, and that until I was heartily tired of it, and my hands were almost frozen, without the slightest avail. I have injected solutions of alum and sulphate of zinc and catechu with no better result. The structure of the velum palati renders it impossible to fix a compress in the upper part of the nostril by means of any string passed into the back part of the mouth;

—ted without the approbation and valuation of one of the proper officers of the district, to whom, if required, she shall be sent for inspection.

Upon the death of any cow, the officer shall inquire into the manner of it; and if it appears to have been caused by wilful neglect, or by his refusing to employ some farrier or veterinary surgeon, he shall receive no benefit; but for every cow dying of disease, and without the neglect of the owner, there shall be paid five-sixths of her estimated value; but no member shall receive any benefit from the institution upon the death of a cow more than fourteen years old.

If, upon any accident, the officer of the district shall deem it necessary to have a cow slaughtered, the owner shall have the option of receiving the net value of her carcass, the expense of slaughtering being deducted, or five-sixths of her estimated value in the books. Every member not making payment on the day appointed, or within fourteen days afterwards, shall be excluded.

The five-sixths of the value will give the cottager an interest in her recovery or preservation, whereas if he was paid the whole value he might be careless.

and the impossibility of preventing a horse from sneezing when he feels the inconvenience of a tent lower down, cuts us off from these mechanical means of plugging up the passage, and forming a coagulum on the orifice of the ruptured vessel. Generally speaking, therefore, we are passive spectators; and, if the horse is in good condition, we entertain no immediate fear, for the discharge may be beneficial rather than otherwise. The principal apprehension is with regard to the formation of the habit. A horse that was subject to these periodical discharges, and which neither bleeding from the jugular nor physic could prevent, was, one morning, found dead in his stall, and his blood covered the floor of the stable.

Repeated hæmorrhage from the nose has preceded glanders; the chronic or half-healed ulcer has taken on a chancreous character. Somewhat low diet, mashes, diuretic or slightly aperient medicine, so as not to interfere with the work of the animal, are indicated when there is this tendency to spontaneous hæmorrhage; and, more particularly, it is necessary that the horse shall not be too tightly reined, and that the collar shall not press upon the jugular at the lower part of the neck.

**Spontaneous Hæmorrhage in the Ox.**—Oxen, and especially those that are worked, and that are in tolerably high condition, are also subject to *epistaxis*. An ox too long and too hardly worked during the heat of a summer's day, will frequently bleed from the nose; but I fear that the hæmorrhage is too often occasioned by blows on the nasals or on the muzzle, inflicted by a brutal drover or ploughman. The bleeding has gradually stopped, and I am not aware of any case in which unpleasant consequences have ensued.

**Leeches producing Hæmorrhage from the Nose.**—I have heard of leeches having fastened on the muzzle, and thence crept into the nostril of the ox and the horse, and particularly of the latter, when drinking from a stagnant pond. These blood-suckers shifting from place to place in the nostril, and biting here and there a considerable hæmorrhage has been produced. If the leech can be seen when the nostril is examined in a good light, or if its presence is strongly suspected, some salt and water should be injected into the nose, for by this the intruder will be speedily detached. The bleeding from the slight wounds of a leech-bite will soon be stayed.

**The Nerves of the Nose.**—This cavity is as plentifully supplied with nervous ramifications as with blood-vessels. First, there is the nerve of peculiar sensation—the *olfactory nerve*, of which I shall have presently more fully to speak; passing through the numerous apertures of the cribriform plate, and spreading its pulpy matter over the whole of the nasal cavity, and probably over the membrane of the sinuses connected with this cavity; but most evidently to be traced on the upper part of the septum, and on the æthmoid and superior turbinated bones. On this nerve depends the sense of smell.

Of nerves of common sensation we have, first, the *palpebro-nasal* (the *lateral nasal* of Mr. Percival) a branch of the ophthalmic, parting from it at the base of the orbit, between the levator and the retractor muscles, and entering again the cranium; pressing through the cribriform plate, and ramifying minutely, and with many beautiful anastomo-

ses on the ethmoidal cells, the frontal sinuses, the turbinated bones, and the septum; a branch of it creeping along the top of the inferior turbinated bone, and sending its ultimate branches to the false nostrils, but other branches from other portions of it ramifying also on the false nostrils and the alæ of the nose.

There is also the true *lateral nasal*, a branch, of the anterior maxillary passing through the sphenopalatine foramen, and dividing; giving one branch for the external wall of the cavity, and another for the septum and the posterior part of the cavity generally.

One branch runs along the bottom of the septum to its anterior extremity, and through the foramen incisivum to the roof of the mouth. It sends a twig to the naso-palatine ganglion, and anastomoses with the palatine, and so completes the circle of nervous influence between the palate and the nose,—that connexion between the senses of taste and of smell, of which we have a thousand proofs.

The *anterior maxillary* nerves give many filaments to the alæ of the nose.

## THE GARDENER.

[From Nuttall's Introduction to Botany.]

The *Vascular texture* is the next of the solids enumerated. It consists of hollow tubes of different forms and structure, which are capable, like the vessels of the animal frame, of conveying fluids. When a succulent stem is cut transversely fluids are seen issuing from different points; and, if the peculiar juices of the plant be of a milky or colored nature, as in the fig tree, or in any of the species of the genus *Euphorbia*, they are still more clearly perceived to issue from different points; for instance, the watery or colorless from one set, and the milky or the colored from another. This circumstance leads us to conclude that the sap, or watery fluid imbibed from the soil, is carried in one set of vessels, and that the proper juices formed from the sap by the vital powers of the plant, are conveyed in another; or, that there are *conducting and receiving* vessels.

The minuteness of these vessels requires the aid of the microscope for their examination; and even by its assistance as they are not easily seen, owing to their coats being in many cases transparent, and the fluids contained in them colorless, we are obliged, in order to render them more evident, to have recourse to colored fluids, which are readily observed when the cut ends of twigs or branches are immersed in them; and the course of the vessels through the branch is thus marked by the color. The most eligible fluids for this purpose are decoctions of Brazil wood, and infusions of the skins of black grapes; the plants likely to yield the most satisfactory results, are the *Periploca græca*, the *Aristolochia Siphon*, or Dutchman's Pipe, and the young shoots of the Poke (*Phytolacca decandra*). The plant or twig to be thus injected should be cut with a very sharp knife, and its divided end immediately placed in the colored infusion in a warm temperature: after a few hours the color, in plants favorable for the experiment, may be traced into the leaves, the flowers, and even the fruit. This discovers the

course of the conducting or adduct vessels; and when the operation is reversed, the twig being cut at its top, and inverted in the colored fluid, we can trace that of the returning or receiving vessels. By placing transverse and longitudinal sections of twigs and parts of herbaceous plants thus treated under the microscope, we are able to ascertain the organization of the coats of the vegetable vessels. Some of the vessels, however, cannot be rendered more visible by this means, as they refuse to admit colored fluids, and therefore a knowledge of their structure can be obtained only by means of powerful microscopes.

The *Vascular* or tubular portion of the vegetable structure composes a kind of net-work, owing to the frequent apparent communication or anastomosis of the vessels with one another. They are, however, no where *wholly continuous*, but separated at variable lengths by diaphragms or by *respective partitions*, so as, in fact, to be only arranged in bundles. The particular vessels vary both in form and in the diameter of their calibres. They are composed of the membranous texture, are firm, comparatively thick, and somewhat pellucid. Mirbel describes 6 different kinds of vessels; but the whole may be arranged under the three following genera: viz. 1st. Entire vessels, or Vasculoid cavities; 2d. Perforated vessels; 3d. Spiral vessels.

1st. The *entire or proper Vessels*, as their names import, have been considered as simple tubes formed of imperforated membrane. They are generally in bundles, disposed in the cellular part of the bark. They are found in the young shoots of almost every kind of plant; and in the fasciculated state may be detected, and examined by the aid of magnifying glasses, in the leaf-stalk of the common Fern, in the Arrow-head (*Sagittaria sagittifolia*), and in the Hemp plant. In order to examine them individually, the bundles should be steeped in spirits of turpentine for a few days, by which means the vessels can be apparently detached from one another.

These vessels are intended to contain the proper juices of the plant, and are generally found filled with oils and resinous juices; consequently they are more obvious in plants, of which the juices are of a thick, resinous nature; and these, drying in the bark, are the matters on which the medicinal virtues of this part of the plant in general depend.

According to Grew, seconded by the observations of Decandolle, Link, and others, the *Proper Vessels* are mere *intercellular* spaces filled with extravasated, deposited juices, which put on the vascular appearance only by the pressure of surrounding cellular tissue. Grew termed them *Tubular Hollows* and *Air-vessels*; Decandolle calls them *Aerial Cavities*; and Link, *Accidental Reservoirs of Air*.

2d. The *Perforated Vessels* are cylindrical tubes, the sides of which are said to be pierced with minute perforations variously distributed. They may be divided, according to the character of the perforations, into two species, viz. *cribriform vessels*, the perforations of which are simple pores, arranged in parallel series, transversely and equidistant over the whole surface of the tubes. Mirbel denominates them *porous vessels*; asserts, that each perforation is surrounded with an eleva-

ted border; and observes, that they must not be regarded as continuous tubes, as they often separate, join again, sometimes disappear altogether, and always terminate in cellular tissue. They are found in the substance of roots, in the formed wood of stems, branches, leaf-stalks, and the central ribs of leaves; and are most numerous in hard woods, as those of the Oak and the Chestnut. Their pores are so extremely small, that, in order to perceive them, a thin longitudinal slice of the wood to be examined must be cut, and placed in a drop of pure water under a powerful microscope. It has not been ascertained what kind of fluid is contained in these vessels. They have apparently no visible office but that of air-vessels; even their pores are formed similar with the cortical or external ones.

A modification of the perforated vessels has the appearance of a string of beads, consisting of united portions of a porous tube, narrowed at the extremities, and divided from each other by diaphragms. This variety of vessels is found frequently in roots, and at the going off of branches, and the attachments of leaves, being intermediate between the large vessels of the stem and those of the branches; and forming, as it were, a link with the character of the cellulæ.

Another variety of the perforated vessels, called *annular*, are so named from the perforations being transverse and oblong, as if the tube were formed of rings of the same diameter, placed one above another, and attached at some part of their edges, but not touching throughout the whole circumference. These are, in fact, porous vessels, with oblong transverse perforations, resembling in every respect, except shape, the round pores of the last described vessels. They are found in greatest numbers in the less compact, woody parts of the plant. The centre of the majority of the species of *Lycopodium*, or Club-moss, contains a thick cylinder, which is chiefly composed of vessels of this kind. Ferns also inclose many of them, in their woody threads; and several other plants, particularly the Vine, the wood of which is soft and porous, contains them in great numbers.

Each of these kinds of perforated vessels is occasionally seen forming different parts of the same tube; or one portion of it may present the cribriform character, and another the annular.\*

\* Decandolle, doubting the existence of truly perforated vessels, termed them *pointed and rayed* vessels. Dutrochet considers the apparent points as globules filled with a greenish, transparent matter. These bodies become opaque by nitric acid, but acquire their transparency again on the addition of caustic potash. The opinion of Mirbel, that these points are perforations, must appear doubtful, from the great minuteness which he attributes to them. Rudolph and Link consider these grains as amylaceous or mucilaginous; while Treviranus imagines them to be young cellulæ destined to acquire growth, and become cells. Amidst this diversity of opinion, to be decided only by observation, we must for the present remain in doubt of the real structure of this class of vessels; but by analogy we are led to believe that they will eventually be found very similar to *tubular* cells, and that the green particles



[From the Southern Agriculturist.]

ON THE SELECTION OF SOILS FOR A VINEYARD.  
HANCOCK Co. (Geo.) July, 1834.

Mr. Editor—Six or eight years ago, a desire to cultivate the vine, seemed to be spreading so extensively through South Carolina and Georgia, that by this time it was expected we should have, if not abundant supplies of good domestic wine, at least such reports of progress as would furnish valuable directions to adventurers of the present day. For such reports I have looked in vain to the pages of your useful repository, and other accessible sources of information. It was never probable, that every vine planted would succeed well, because too little was known in this country of the culture, eligibility of soils, or variety of the vine to be planted. Except Mr. Geiger, Mr. Herbmont, and a few others in Carolina; and, perhaps, about the same number in Georgia, I have heard of no experimenter, whose achievements in wine-making, can be regarded as at all encouraging. Every one has raised vines, which in the spring season, give fair promise of fruit; but unluckily before vintage, mildew, rot, or some other form of malady, seems, in most instances, to have destroyed most or all of the crop. Such, at least, has been the fate of mine, and several other small vineyards within the range of my observation, though I have remarked a few notable exceptions.

A knowledge of the causes of failure and of success is in great demand by all who think of prosecuting this interesting branch of cultivation; and this cannot, so certainly and conveniently be had, in any other way as by detailed accounts of experiments, setting forth the mode of planting the vines, the kind of earth in which they may have grown—whether clay, sand or loam predominates—the name of the vines, methods of tillage and training, together with the experimenter's own remarks on the subject. It is in the hope of drawing from some of the readers and patrons of the *Agriculturist*, that I ask the publication of this article.

It has been said, I know, that an annual excision of the superficial roots of the vine, so as to force the plant to subsist and propagate fruit, by the roots more deeply rooted beneath the surface, would be found a security from mildew and rot. This mode of treating vines is often practised in this country, and possibly with beneficial effects. Mine, however, which grow thriftily in a deep sand, have not matured one half the fruit.

It has also been said, that sandy and rather poor land produces more perfect and richer berries than soil of greater fertility, and more largely

observed by Dutrochet, will turn out to be the very similar motory particles of the cellulose; and as all this class of vessels are at one period, at least, empty, or only filled with gases or air (their parietes only containing the circulating fluid,) we can perceive no necessary economy answered by the additional contrivance of lateral perforations. At the same time, the affinity of structure between the vessels with annular openings, and the spiral ones, would tend to confirm the views of Mirbel, though the latter organs are by all phytologists considered as perfectly distinct in structure and function from every other kind of vessels.

mixed with clay. This, too, is contradicted by my observation. By far the most thrifty and valuable vineyard, I ever saw, comprising six or eight varieties of the grape, on about seven acres, is now cultivated in the county of Jasper, (Georgia) on a high hill of pretty rich red clay and very stony. I saw it last July in full bearing, the fruit just beginning to ripen, and not a berry diseased, except a few Isabellas, and, perhaps, one other variety, the name not now remembered. The excessive wet weather of last spring was fatal to grapes growing on sandy soils; yet the vineyard in the Jasper, on red clay, was never more prolific, yielding, as I understand, between one and two thousand gallons of wine, which the skilful and fortunate cultivator, Col. Alexander, sells readily at from one and a half to two and a half dollars a gallon, when above one year old. But this was not the only instance of pretty uniformly good crops being produced on rich red clay lands.

What time may do for vines which grow on poor and sandy land, our brief experience in the culture of the article has not yet shewn—such lands, I know, are recommended by most European writers; yet it is well known that in a state of nature, it is our rich woodlands only that produce our thricest vines and the richest fruit. The experience of Europe may be different, or as has been often stated, and yet no safe guide in this respect to the American adventurer.

The most productive vines I ever saw, is the mother of that family of excellent grapes, known as the "Devereux grape." It stands in my neighborhood, is now thirty years old or upwards, and has been trained on arbors to the length of one hundred feet or more—never much pruned—produces a good crop every year, and grows in soil almost as rich as manure can make it. I have a number of thrifty vines of the Devereux grape in a vineyard of rather poor sandy land, which have not perfected fruit oftener than one year in three since they began to bear—they may do better when older; but from the facts that have fallen under my notice, I would, for the location of a vineyard, select the richest red clay of suitable elevation that I could find. Long spells of rain, will, I fear, ruin the fruit of any vines in this country which grow on beds of deep sand—unless, indeed, such consequences may be averted by copious applications of manure.

HIGHLANDER.

## MISCELLANEOUS.

How to have Green Corn in the Winter.—Of all the productions of summer, there is hardly one more nutritious and palatable than green Corn; and yet it is proscribed as contributing to some of the complaints of the season. It is, however, in this, as in many other cases, that the ingenuity of man has found means to turn this inconvenience into good account, by preparing and keeping this article for winter use. But the method of doing this, seems not to be universally known. It is common in many parts of New England, but the writer does not recollect to have seen the prepared article in our market. It may be so prepared as to be as good and as palatable in the winter as in the appropriate season, and

may be eaten with perfect safety, if not as a promoter of health.

The simple process of preparing it is this:—The Corn must be taken from the stalk when it is full in the milk, or in that state in which we generally use it—the husks stripped off, and the ears thrown into a kettle of boiling water, when it may remain half as long as you would boil it for the present use. This will harden it so that it may be easily taken from the cob: It may then be spread in the sun till it is thoroughly dry; In preparing it for the table it may be soaked from twelve to fifteen hours, and boiled in the same water. But care must be taken not to boil it too much, as that will make it hard and diminish its sweetness.

N. B. To get the corn from the cob, every alternate row may be punched off with a sharp stick, and the remainder wrung off with the hands.

Corn thus prepared would command almost any price in the winter.—N. Y. Com. Adv.

Sponge.—Many of our young readers, we presume, are not aware that the sponge which they use in performing their morning ablutions, is but the skeleton of what was once a living animal. Young misses, in particular, would shudder at the idea of rubbing their fair foreheads and rosy cheeks with a skeleton. But it is even so. "The sponge belongs to the lowest order of beings in the animal kingdom. It consists of a fibrous mass, containing a jelly-like substance, which, when touched, discovers a slight sensation, the only sign of life manifested. When the sponge is living, the large apertures in it serve to carry out fluids from within; while the water by which the animal is nourished, is imbibed by minute pores. This continued circulation of water is one of the most important functions of the living sponge. If a part of one of these animals is separated from the rest, it will itself be as perfect a living animal as was the whole before. There are many species of sponge; the most valued in the arts are found in the Mediterranean sea and Indian Ocean. They grow upon rocks and upon the bottom of the sea.—American.

From the Lynchburg Virginian, Sept. 4.

High prices!—Three hhds. of Tobacco, made by Mr. Douglass B. Lane of Alleghany,—and the first we are informed that ever came to this market from that county,—were sold at Lynch's warehouse on Monday last at auction at the following prices:—No. 1, \$10½, No. 2, \$9½, No. 3, \$8; average for the crop \$933.—A crop of three hhds. made by Mr. John Bowyer of Rock-bridge was sold the same day for \$10, 8 and 7.

## CONTENTS OF THIS NUMBER.

Editorial paragraphs running at large—A. Spencer's opinion of Gama Grass—Knitting Machine; information wanted—Eagle Balance—Drought and Fresh in North Carolina—Maryland Horticultural Society's Report—Chemistry—Dr. Patterson's method of "using up" old Sedge—Agricultural Chemistry; Elements of Soils—A popular opinion respecting the Wheat Plant examined—Covering for Houses—Molasses from Potatoes—Louisiana Sugar Crop—Short-Horns, continued—Yount's Lecture V.; the nose—Vascular texture of Plants—On the selection of Soils for a Vineyard—How to have Green Corn in the Winter—Sponge, an animal—High Prices—Advertisements.

## BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY.

	PER.	FROM	TO
BRANDY, Apple,.....	gallon.	\$0 36	\$
Peach,.....	"	75	"
BEANS, white field,.....	bushel.	1 00	1 10
BEEF, on the hoof,.....	100lbs.	4 00	5 25
CORN, yellow,.....	bushel.	64	65
White,.....	"	64	65
COTTON, Virginia,.....	pound.	"	"
North Carolina,.....	"	11	13
Upland,.....	"	14	15 1/2
FEATHERS,.....	pound.	36	38
FLAXSEED,.....	bushel.	1 37	1 50
FLOUR—Best white wheat family,.....	barrel.	6 50	7 00
Do. do. baker's,.....	"	5 75	6 25
Do. do. Superfine,.....	"	5 00	5 25
Super Howard street,.....	"	5 12	5 25
" wagon price,.....	"	5 00	5 18
City Mills, extra,.....	"	5 25	5 37
Do. ....	"	5 00	5 25
Susquehanna,.....	"	5 25	"
Rye,.....	"	3 37	"
GRASS SEEDS, red Clover,.....	bushel.	4 50	5 50
Timothy (herds of the north).....	"	3 00	3 50
Orchard,.....	"	3 00	3 50
Tall meadow Oat,.....	"	2 50	2 50
Herds, or red top,.....	"	1 25	"
HAY, in bulk,.....	ton.	"	13 00
Pressed,.....	100 lbs	"	90
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
LIME,.....	bushel.	"	35
MUSTARD SEED, Foreign,.....	"	4 50	5 00
Domestic,.....	"	5 00	"
OATS,.....	"	30	33
OIL, linseed,.....	gallon.	"	92
Castor .....	"	1 62	1 75
PEAS, red eye,.....	bushel.	75	"
Black eye,.....	"	"	"
Lady,.....	"	"	"
PLASTER PARIS, in the stone,.....	ton.	2 75	"
Ground,.....	barrel.	1 37	"
PALMA CHRISTA BEAN,.....	bushel.	1 50	"
RAGS,.....	pound.	3	4
RYE,.....	bushel.	65	66
TOBACCO, crop, common,.....	100 lbs	3 75	5 00
" brown and red,.....	"	5 00	7 00
" fine red,.....	"	7 00	9 00
" wrappery, suitable.....	"	6 00	12 00
for segars,.....	"	8 00	12 00
" yellow and red,.....	"	13 00	17 00
" yellow,.....	"	15 00	25 00
" fine yellow,.....	"	3 50	5 00
Seconds, as in quality, ..	"	5 00	9 00
" ground leaf,.....	"	4 00	"
Virginia,.....	"	4 00	10 00
Rappahannock,.....	"	"	"
Kentucky,.....	"	4 00	10 00
WHEAT, white,.....	bushel.	1 05	1 13
Red,.....	"	95	1 05
WHISKEY, 1st pf. in bbls.....	gallon.	32	34
" in hds,.....	"	30	"
" wagon price,.....	"	28	29
WAGON FREIGHTS, to Pittsburgh,.....	100 lbs	1 50	"
To Wheeling,.....	"	1 75	"
WOOL, Prime & Saxon Fleeces, ..	pound.	50 to 60	24 to 26
Full Merino,.....	"	40	50 22 24
Three fourths Merino,.....	"	35	42 22 24
One half do.....	"	30	35 21 22
Common & one fourth Meri.	"	28	30 18 20
Pulled,.....	"	28	31 18 20

SUBSCRIBERS can have their volumes of the AMERICAN FARMER neatly half bound and lettered at this establishment, at 75 cents a volume. Most of the Nos. can also be had at 10 cents each, to complete files.

## NEWFOUNDLAND PUPPIES.

SEVERAL fine DOG PUPPIES of this variety, the produce of a very valuable pair, recently procured from Philadelphia—may be had at \$10 each, on application to  
I. I. HITCHCOCK,  
American Farmer Establishment.  
Sept. 16.

## BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	bushel.	\$ 37	\$0 40
BACON, hams,.....	pound.	11	"
Shoulders,.....	"	"	9
Middlings,.....	"	"	10
BUTTER, printed, in lbs. & half lbs.	"	31	"
Roll,.....	"	12	20
CIDER,.....	barrel.	"	"
CALVES, three to six weeks old,.....	each.	4 00	7 00
COWS, new milch,.....	"	22 00	30 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	1 62	"
CHOP RYE,.....	"	1 62	"
EGGS,.....	dozen.	13	"
FISH, Shad, trimmed,.....	"	"	"
" salted,.....	barrel.	6 37	"
Herrings, salted, No. 1 & 2,.....	"	4 00	4 50
Mackerel, No. 1, 2 & 3,.....	"	4 00	4 50
Cod, salted,.....	cwt.	2 25	2 50
LAMBS, alive,.....	each.	1 25	2 00
Slaughtered,.....	quart'r	31	50
LARD,.....	pound.	8	"
ONIONS,.....	bushel.	"	75
POULTRY, FOWLS,.....	dozen.	1 75	2 00
Chickens,.....	"	1 75	2 00
Ducks,.....	"	2 00	2 25
POTATOES, Irish,.....	bushel.	"	62
Sweet,.....	peck.	19	25
VEAL, fore quarters,.....	pound.	7	"
Hind do. ....	"	8	"

## ADVERTISEMENTS.

## A RARE CHANCE.

THE subscriber has the selling of the following Stock, at prices lower than of any similar stock he has ever known offered in this country. These animals will be for private sale, at the annexed prices, until Saturday, the 25th day of October, (the day after the termination of the Baltimore races), when all that may remain unsold will be offered at public auction. It is probable that many other animals will be added to the sale, of which due notice will be given. The subscriber has recently inspected every individual comprised in the following list, and therefore pledges himself that they will be found to answer the description here given. They are numbered, for convenient reference. Gentlemen wishing to improve their stock are not likely to have frequently such opportunities for doing it as the one now offered them.

## Thorough-bred Durham Short-Horns.

No. 1—A Bull, about 13 months old, dun and white, of good size, and very handsome. This is a valuable animal. Price \$200.

No. 2—A Heifer, about 18 months old, red and white, of good size, and very handsome. She is in calf to a thorough-bred bull. Price \$150.

No. 3—A Heifer, of same age and description in all respects as No. 2, and same price. She is a great beauty.

## Calves.

No. 4—A white Bull.

5—A dun and white do.

6—A red and white do.

7—A red and white Heifer.

8—A white Heifer.

These are all calves of 1834, of the same stock as the above described, and equally promising. Prices from \$80 to \$120 each. Each of the above animals will be sold with a well authenticated pedigree of pure blood.

No. 9—A Heifer Calf, red and white.

10 do. do. do.

These two calves are of the same stock as those previously described, and equally handsome, but the pedigrees of their dams being lost, they will be sold without pedigrees, though they are known to be thorough-bred. Price \$50 each.

No. 11—A thorough-bred bull, about 15 months old, red and white, of good size and form—a very valuable animal. He was bred by a gentleman of Philadelphia, who has imported a few thorough-bred cattle for his own use, but as he does not deal in them, he keeps no written pedigrees of his stock. His certificate, however, which will accompany the bull, is a sufficient guarantee of the purity of his blood. The brother of this bull, 3 years old, was

sold this summer by John Barney, Esq. for \$300. This will be sold for \$200.

## Alloyed Durham Short-Horns.

The following, though not thorough-bred, are (several of them) very fine animals.

No. 12—A three-fourths blood Bull, nearly white, two years old in May last—very large—was got by Hector, a thorough-bred bull, raised by Mr. Powell, out of a fine half-blood cow. Price \$100.

No. 13—A seven-eighths blood Bull, red and white, two years old in July last, of middlingsize, and very handsome—got by the celebrated thorough-bred bull Bolivar, out of a three-fourths blood cow. Price \$100.

No. 14—A three-fourths blood Bull, red and white, one year old—got by Bolivar, out of a half-blood cow. Price \$75.

No. 15—A fifteen-sixteenths Bull Calf, five months old, white and red—got by Apollo, (thorough-bred) out of a seven-eighths blood cow. He is a calf of extraordinary beauty, and great promise. Price \$75.

No. 16—A seven-eighths Cow, (the dam of No. 15), a fine breeder, for which alone she has been kept. She is 10 years old, in good health and condition, and is supposed to be in calf by No. 12 or 13. Price \$50.

No. 17—A three-fourths blood Heifer, 3 years old, white—got by Bolivar, out of a half-blood cow. She is small, but very handsome. She has had one calf, and has proved herself a fair milker, and is in calf now to No. 12 or 13. Price \$75.

## Sheep.

No. 18—A Buck, of the New Leicester or Improved Bakewell breed, two years old—a good animal. Price \$50.

No. 19—A Buck, of the Cotswold breed, two years old; a valuable breeder. Price \$50.

No. 20—A Buck of last spring; pure Improved Bakewell breed—very large and likely. Price \$50.

No. 21—Twenty Bakewell Ewes, of pure blood, but having been kept not quite in Barney's style, are not first rate, except in blood. They will be sold for \$20 to \$25 each.

## Boar.

No. 22—A fine Boar, 7 months old, a cross between the two celebrated breeds known as the Mackay and the large spotted Woburn or Duke of Bedford breed. He is a remarkably fine hog, and will be sold for \$20, not less.

## Fillies.

No. 23—A pair of very beautiful sorrel Fillies, one year old, remarkably well matched, thorough bred—pedigrees and prices shall be furnished on request.

Address I. I. HITCHCOCK,  
American Farmer Establishment,  
Who has for sale Devon Cattle of pure blood, at very low prices.  
Sept. 16.

## GAMA GRASS SEED

JUST received, and for sale at this Establishment—  
Price 50 cents per ounce.  
Sept. 23.

## SEED WHEAT, RYE, &amp;c.

THE subscriber offers his services for the procurement of Seed Wheat, Rye, &c. for those who shall provide funds in Baltimore for that purpose. He does not keep those articles on hand, and therefore can send them to those only who furnish him with the means in advance. For all such, however, he will use his best judgment to procure such grain as shall be ordered, charging a small commission for his agency.

I. I. HITCHCOCK,  
Amer. Farm. Estab.

Note—I. I. H. has made arrangements for procuring for cash, Seed Grain of the very first quality, from some of the best farms in Maryland.  
aug. 12

100 Bushels of PEACH STONES WANTED,  
or any less quantity, for which a fair price will be paid at this Establishment.  
Sept. 16.

## PIGS OF THE BARNITZ BREED.

ABOUT the 25th inst. I shall be ready to deliver a few of these celebrated pigs at \$5 each. Those whose orders are on register will have preference, but it is probable that after supplying them, a few will remain for sale.

I. I. HITCHCOCK,  
American Farmer Establishment.  
Sept. 16.

Printed by SANDS & NEILSON, South East corner of Calvert and Market-streets.